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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,595

12/03/2004

Jacques Bauden

2018-0134PUS1

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2292 7590 07/20/2007
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EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1742

NOTIFICATION DATE

DELIVERY MODE

07/20/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/516,595

Applicant(s)

BAUDEN, JACQUES

Examiner

Deborah Yee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12-03-04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 recites "a rise in temperature of the said at least one steel wire up to an austenitisation temperature of the steel", which is indefinite and does not clearly define the invention because it does not actively recite a process step and "up to" has a lower limit of zero. It is recommended to use language such as --heating said at least one steel wire to the austenitisation temperature of the steel---.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over The English abstract of Japanese patent 404280920 (hereinafter JP'920) in view of US Patent 5,146,759 (hereinafter US'759).

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6. The English abstract of JP'920 teaches a patented steel wire processed in substantially the same manner as claimed by applicant comprising the steps of subjecting a steel wire to austenitizing by heating at austenitic temperature of greater than Ac3, followed by rapid cooling the moving wire transversely with a water spray nozzle between a temperature range of Ae1 to 500C at a cooling velocity not falling below the pearlite transformation and isothermally maintaining at pearlitic transformation to convert microstructure to pearlite and then cooling to retain pearlite. Even though cooling with a liquid curtain as recited by the claim is not taught, such would be expected to form when water spraying.

7. Even though prior art does not teach spraying from the bottom to form rising turbulent flow as recited by claim 2 and wherein the turbulent flow curtains have a top and at least one side of each turbulent flow curtain has a falloff liquid through which steel wire also passes as recited by claims 3 and 4 are not taught by prior art, such would not be a patentable difference. Note that US'759 in claims 1 and 3 of column 19 teach rapid and efficient wire cooling can be achieved by spraying wire transversely with a air-water spray from below the moving wire. Hence since rapid and efficient wire cooling is desired and sought by JP'920, then it would be obvious to incorporate the cooling technique of US'759 to produce no more than the known and expected effect from such modification.

8. Even though JP'920 does not teach cooling liquid with pressurized gas bubble as recited by claims 5 and 8, such would not be a patentable difference. Note US'759

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teaches air (equivalent to gas) combined with liquid (water) is an effective quenchant for wire cooling. Hence it would be obvious to incorporate to JP'920 cooling step.

9. JP'920 teaches cooling with water and hence meets claim 6. Moreover JP'920 teaches patenting steel wire, in general, which would include wires having a diameter of less than 15 mm as recited by claim 7.

10. In regard to apparatus claims 9 to 12, JP'920 in view of US'759 discloses a method utilizing a furnace for austenitizing, means for driving steel wire, means for cooling, and a means for temperature maintenance.

11. The unapplied references have been cited to further depict the state of the art in cooling wire rod.

Specification

12. The disclosure is objected to because of the following informalities: Page 26, line 28 discloses "BE-A-838796" yet it should be –FR-838796—as cited in applicant's IDS dated December 3, 2004.

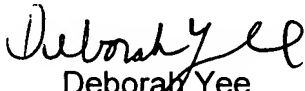
Appropriate correction is required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00am-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Deborah Yee
Primary Examiner
Art Unit 1742

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